NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Social Science Community Newsletter

Volume 11, January/February 2017 ~ Sharing knowledge for better practices

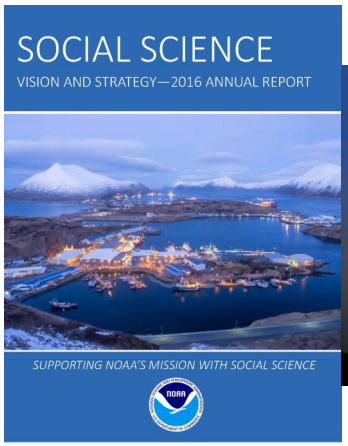
NOAA Team of Social Scientists working to Integrate Socioeconomic Sciences at the Agency-Wide Level

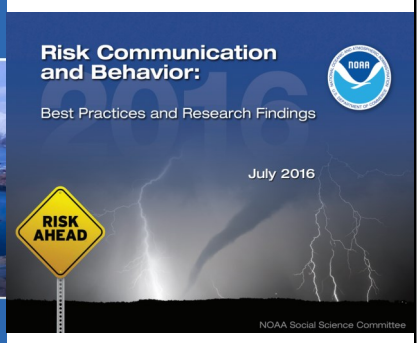
A team of experienced, highly-trained social scientists (including economists, risk communicators, and environmental scientists) staffs the Office of the Chief Economist. Administratively, the Office sits in the Performance, Risk, and Social Science Office of the NOAA Chief Financial Officer. The team's core functions are to identify and promote the use of best practices to improve the consistency, quality, and efficiency of the social science work across the agency.

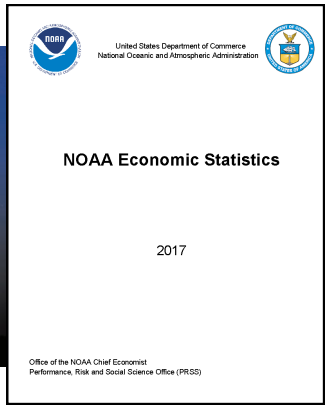
The Social Science Team's capabilities and expertise includes:

- Market and Non-Market Valuation
- Economic Consequence Estimation
- Risk Communication
- Performance Metrics
- Benefit-Cost Analysis
- Cost-Effectiveness Analysis
- Sensitivity Analysis
- Stakeholder Identification
- Goal-Oriented Results Modeling
- Data Analysis and Visualization
- Regression Analysis
- Applied Microeconomics
- Decision Support
- Monte Carlo Analysis

For more information, visit: http://www.performance.noaa.gov/economics/







Upcoming Events

Sofitel Bali Nusa Dua Beach Resort
Site for the World Ocean Summit, Bali Indonesia

February 22-24, 2017: World Ocean Summit. Bali, Indonesia
http://oceansummit.economist.com/

February 26-28, 2017: IAFOR International Conference on the Social Sciences. Dubai, U.A.E.
http://iafor.org/conferences/iicssdubai2017/

March 20-23, 2017: 2017 Natural Capital Symposium. Stanford, CA
http://www.naturalcapitalproject.org/natcap2017/

March 29-30, 2017: Consortium of Social Science Associations (COSSA) Annual Meeting & Social and Behavioral Science Advocacy Day. Washington, D.C.
http://www.cossa.org/event/2017-science-policy-conference/

March 29 - April 2, 2017: Association American Geographers Annual Meeting, San Francisco, CA
http://www.aag.org/annualmeeting

Transforming the NOAA Weather Radio All Hazards Program

By Tyra L. Brown, Ph.D., Project Manager, National Weather Service Office of Dissemination

The NOAA Weather Radio All Hazards Program (NWR) is a network of radio stations broadcasting official warnings, watches, forecasts, and other hazard information directly from the nearest National Weather Service office. Since the mid-1950s, the system uses broadcast Radio Frequency technology to transmit information 24 hours a day, 7 days a week.

However, the system is aging and more attention should be given to user requirements and more advanced technology and it is time to upgrade the network.

The Transformational Change Project, sponsored by NOAA National Weather Service's Office of Dissemination, will bring a new era for the network. Phase 1 focused on identifying user needs and involved using social science methods, such as surveys, in-person interviews and focus groups, to solicit input on current and future user needs from core NWS partners. In Phase II, an internal team will continue to work with stakeholders as new requirements are identified to design and develop a new system capable of supporting multiple dissemination platforms.

Credit: NOAA

Did You Know?

In addition to natural hazards such as earthquakes and environmental hazards such as chemical releases and oil spills, NOAA Weather Radio broadcasts AMBER alerts and 911 telephone outages.

Source: www.nws.noaa.gov/nwr/index.php.

For more on this project contact me, Tyra Brown, at tyra.brown@noaa.gov.

For a special interview on the project, check out the Weather Hype Podcast at www.weatherhypepodcast.com

Special thanks to: Luis J. Cano and Craig S. Hodan (Office of Dissemination, NOAA/ National Weather Service Silver Spring, Maryland) and Laura Myers, Ph.D. (University of Alabama)

Improved Indicators for Social Vulnerability in Fishing Communities

By Lisa Colburn, Ph.D., Anthropologist, NMFS Northeast Fisheries Science Center

NOAA's National Marine Fisheries Service (NMFS) developed a set of social indicators of fishing community vulnerability and resilience to evaluate the effects changing fishery management in nearly 4,000 coastal communities in the United States. The Community Social Vulnerability Indicators (CSVIs) were the first quantitative measures at such a broad geographic scale for use in fisheries social impact assessments along the Eastern and Gulf coasts.

Credit: NOAA

The direct impacts of storms, weather, and sea level rise along with the indirect impacts of ocean acidification and temperature on fish stocks are critical factors that affect fishing-dependent communities. These factors necessitated additional work to account for their effects on fisheries.

The CSVIs expanded to include climate change vulnerability indices. There is a new indicator for the impact of sea-level rise on commercial fishing infrastructure nationwide. Another indicator shows community dependence on fish species that are vulnerable to climate change for the northeastern United States. Visit www.st.nmfs.noaa.gov/humandimensions/social-indicators/index for more on this work or contact me, Lisa Colburn, at lisa.l.colburn@noaa.gov.

Study Calls on Investors to Account for Climate Change

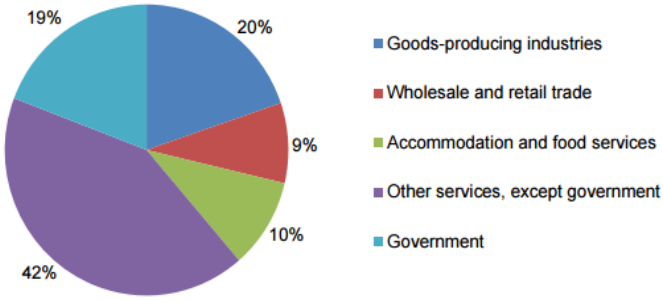
Credit: NOAA

Identifying and managing risk is essential to smart investment. A 2011 study by Mercer—a global health, retirement, investment, and talent consulting firm—found that climate policies are a risk factor given their influence on the energy sector.

Three critical questions remained. How big a risk/return impact could climate change have on a portfolio? What are the key risks and opportunities? What plan of action can ensure portfolio resilience?

Building on the previous study, a new study in 2015 involving 16 investors used scenarios to estimate the impacts of climate change on investments. The study found that climate change will affect returns on investment regardless of the scenario, there are differences among industry sectors, asset class return impacts vary by scenario, and that a 2°C scenario need not harm investors with diversified portfolios over the period modelled (to 2050). Ultimately, the study demonstrated why climate-related risk factors should be standard considerations for investors. View the report at www.mercer.com/our-thinking/investing-in-a-time-of-climate-change.html.

NOAA Report Highlights the Dependency of Puerto Rico and the U.S. Virgin Islands on the Ocean



Source: BEA, 2014.

USVI GDP by High-level Industry Sector, 2012
Credit: Abt Associates and NOAA OCM Report

St. John, U.S. Virgin Islands
Credit: NOAA

Economics: National Ocean Watch (ENOW) provides data on the degree to which the state, regional, and national economies depend on the ocean and Great Lakes. However, ENOW does not include information for Territories of the United States, including the United States Virgin Islands (USVI) and Puerto Rico, which have a high level of ocean-dependency.

A report produced by Abt Associates and the NOAA Office for Coastal Management (OCM) summarizes employment and wages for the USVI and Puerto Rico using the same classification used for the mainland U.S. This report provides empirical evidence that these economies are more reliant on ocean-related activity than most coastal states and far more reliant than the U.S. as a whole. View the report at: coast.noaa.gov/data/digitalcoast/pdf/econ-usvi-pr.pdf

Did You Know?

In 2012, The U.S. Virgin Islands' GDP was $4.14 Billion. This amounts to about 0.02 percent of the GDP for the United States. As much as 80 percent of the GDP comes from tourism-related activities

Source: Abt Associates and NOAA OCM Report

Social Scientist Spotlight: Stephen Stohs, Southwest Fisheries Science Center

Photo Courtesy of Stephen Stohs

What He Does: Stephen is an economist at the Southwest Fisheries Science Center. His work focuses on conservation management for highly migratory species, such as tuna, swordfish, and migratory sharks. Among his primary duties is to serve as the economist on the Highly Migratory Species Management Team, an advisory body to the Pacific Fishery Management Council.

His Background: Stephen holds a Ph.D. in environmental and natural resource economics at University of California, Berkeley. Stephen also holds has a Masters in Mathematics.

An Important Accomplishment: Along with his colleagues Summer Martin and Jeffrey Moore, Stephen published a paper on Bayesian estimation of rare event protected species interactions. This paper is an important advance in producing probability-based estimates of rare event protected species interaction risk based on past observations of protected species interactions in fisheries.

Biggest Misconceptions about Social Science: That economics is a subfield of finance which is narrowly concerned with matters of dollars and cents. He and many fellow NOAA economists' work encompasses far broader concerns such as the nonmarket existence value of healthy marine populations, or the tradeoffs between fishing opportunity and conservation benefits.

A Fun Fact About Stephen: Stephen is a serious amateur violinist who brings his instrument along to Pacific Fishery Management Council meetings.

Reach Stephen at stephen.stohs@noaa.gov

2017 Coastal Resilience Grants Competition Open

The Coast Resilience Grants Program supports activities that protect life and property, safeguard people and infrastructure, strengthen the economy, and conserve and restore coastal and marine resources. Applicants can submit proposals for one or both of the following categories:

Installing living shorelines
Credit: EPA

- **Strengthening Coastal Communities**: activities that improve capacity of multiple coastal jurisdictions (states, counties, municipalities, territories, and tribes) to prepare and plan for, absorb impacts of, recover from, and/or adapt to extreme weather events and climate-related hazards.
- **Habitat Restoration**: activities that restore habitat to strengthen the resilience of coastal ecosystems and decrease the vulnerability of coastal communities to extreme weather events and climate-related hazards.

Eligible applicants include nonprofit organizations, institutions of higher education, regional organizations, private entities, and local, state, and tribal governments. The typical award amounts will range from $250,000 to $1 million for projects lasting up to three years. Cost-sharing through cash or in-kind contributions is expected and projects must be located in one or more of the 35 U.S. coastal states or territories.

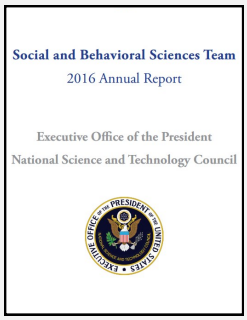
Application Deadline: March 15, 2017

For more information, visit: www.coast.noaa.gov/resilience-grant/

View the White House Social and Behavioral Sciences Team 2016 Annual Report

The Social and Behavioral Sciences Team 's (SBST) work fell in three major themes: Addressing major policy challenges; Leveraging strategies to maximize impact, and Using the best available evidence to rigor to test project impacts. In their 2016 Annual Report, the SBST highlights results from completed projects and describes ongoing efforts in eight key policy areas including advancing economic opportunity and responding to climate change.

View the report at: https://sbst.gov/download/2016%20SBST%20Annual%20Report.pdf



Recent Social Science Publications

* Hawkins, M.D., V. Brown, and J. Ferrell. 2017. Assessment of NOAA National Weather Service Methods to Warn for Extreme Heat Events. Weather, Climate, and Society 9(1): 5-13. DOI: dx.doi.org/10.1175/WCAS-D-15-0037.1
* Colburn, L.L., M. Jepson, C. Weng, T. Seara, J. Weiss, and J.A. Hare. 2016. Indicators of Climate Change and Social Vulnerability in Fishing Dependent Communities along the Easter and Gulf Coasts of the United States. Marine Policy 74:323-333. DOI: dx.doi.org/10.1016/j.marpol.2016.04.030
* Guido, Z., V. Rountree, C. Greene, A. Gerlak and A. Trotman. 2016. Connecting Climate Information Producers and Users: Boundary Organization, Knowledge Networks, and Information Brokers at Caribbean Climate Outlook Forums. Weather, Climate, and Society 8(3): 285-298. DOI: dx.doi.org/10.1175/WCAS-D-15-0076.1
* Clements, J., V. Feliciano, B. Almodóvar-Caraballo, and C. Colgan. 2016. Describing the Ocean Economies of the U.S. Virgin Islands and Puerto Rico. A report submitted to the NOAA Office of Coastal Management by Abt Associates. (August 2016). Available from: https://coast.noaa.gov/data/digitalcoast/pdf/econ-usvi-pr.pdf

Have a publication to share?

Help us populate the list of social science publications by sending the citation to prss.socsci@noaa.gov

Join Ongoing Communities of Practice

Value of Scientific Information (VOI) Community of Practice (COP)

This COP formed to increase collaboration on VOI issues among Federal agencies and their partners. An important goal is to improve the quality and consistency of quantitative estimates of VOI studies. Improving VOI studies will help improve performance by focusing on the benefits that the information we produce provide to society. Learn more about the group at www.performance.noaa.gov/value-of-information-community-of-practice/. Interested in joining? Send a message to prss.socsci@noaa.gov.

Data Visualization

Data visualization allows us to identify patterns, trends, and correlations that might otherwise go unnoticed. We're looking for people to join the Data Visualization COP to advance the art and science of displaying data. Send a message to dataviz@noaa.gov if you're interested in joining.

We would like your input. Please send us ideas for stories, articles, or social science work that we should highlight.
You can contact us at: prss.socsci@noaa.gov